

Amendments to the Claims:

This listing of claims will replace all prior listings of claims in the application.

Listing Of Claims:

Claim 1. (Original): An illumination optical system for illuminating an illuminated surface using light from a light source, said illumination optical system comprising:

a splitting optical system for splitting the light from the light source into light incident upon a first diffraction optical element, and light incident upon a second diffraction optical element;

a first polarization unit for adjusting a polarization state of the light from the first diffraction optical element;

a second polarization unit for adjusting a polarization state of the light from the second diffraction optical element; and

an integrating optical system for integrating the light from the first diffraction optical element with the light from the second diffraction optical element, and for introducing integrated light into the illuminated surface.

Claim 2. (Original): An illumination optical system according to claim 1, further comprising an adjusting unit for adjusting a light intensity of the light from the first diffraction optical element, and/or an adjusting unit for adjusting a light intensity of the light from the second diffraction optical element.

Claim 3. (Original): An illumination optical system according to claim 2, further comprising a shielding unit arranged in an optical path of the light incident upon the first and/or second diffraction optical elements.

Claim 4. (Original): An illumination optical system according to claim 2, further comprising a detector for detecting a light intensity of the light from the first diffraction optical element and a light intensity of the light from the second diffraction optical element, wherein said adjusting unit adjusts a ratio between a light intensity of the light from the first diffraction optical element and a light intensity of the light from the second diffraction optical element.

Claim 5. (Original): An illumination optical system according to claim 1, further comprising an integrator for forming a plurality of secondary light sources using the light from the light source, wherein said integrating optical system integrates the light from the first diffraction optical element with the light from the second diffraction optical element at an incident surface of the integrator.

Claim 6. (Original): An illumination optical system according to claim 1, wherein said integrating optical system comprises a zooming optical system.

Claim 7. (Original): An illumination optical system according to claim 1, wherein said first or second polarization unit comprises a rotational $\lambda / 2$ plate.

Claim 8. (Original): An illumination optical system according to claim 1, wherein the first or second diffraction optical element is rotational.

Claims 9-11. (Cancelled).

Claim 12. (Currently amended): An illumination optical system for illuminating an illuminated surface using light from a plurality of light sources that includes first and second light sources, said illumination optical system comprising:

 a first diffraction optical element upon which the light is incident from the first light source among the plurality of light sources;

 a second diffraction optical element upon which the light is incident from the second light source among the plurality of light sources;

 a first polarization unit for adjusting a polarization state of the light from said first diffraction optical element;

 a second polarization unit for adjusting a polarization state of the light from said second diffraction optical element; and

 an integrating optical system for integrating the light from the first diffraction optical system element with the light from the second diffraction optical system element, and for introducing integrated light into the illuminated surface.

Claim 13. (Cancelled).

Claim 14. (Currently amended): An exposure apparatus comprising:

an illumination optical system according to claims 1 for illuminating a reticle; and

a projection optical system for projecting a pattern on the reticle onto a plate,

wherein said illumination optical system includes:

a splitting optical system for splitting light from a light source into light

incident upon a first diffraction optical element and light incident upon a second diffraction

optical element;

a first polarization unit for adjusting a polarization state of the light from

the first diffraction optical element;

a second polarization unit for adjusting a polarization state of the light

from the second diffraction optical element; and

an integrating optical system for integrating the light from the first

diffraction optical element with the light from the second diffraction optical element, and for

introducing integrated light into the reticle.

Claim 15. (Currently amended): An exposure apparatus according to claim 14,

further comprising:

a detector for detecting a light intensity of the light from the first diffraction optical element and a light intensity of the light from the second diffraction optical element; and

an adjusting unit for adjusting a ratio between the light intensity of the light from the first diffraction optical system element and the light intensity of the light from the second diffraction optical element.

Claim 16. (Original): An exposure apparatus according to claim 15, wherein the illumination optical system includes a monitoring section for monitoring a light intensity at a position corresponding to a surface of the reticle, and calibrates monitoring according to an adjustment of balance.

Claim 17. (Original): An exposure apparatus according to claim 15, wherein the detector detects the light intensity at a position corresponding to the surface of the reticle or a surface of the plate.

Claim 18. (Currently amended): A device fabrication method comprising the steps of:

exposing a plate by using an exposure apparatus ~~according to claim 14~~; and
developing the plate,

wherein said exposure apparatus includes:

an illumination optical system for illuminating a reticle; and

a projection optical system for projecting a pattern on the reticle onto the plate;

wherein said illumination optical system includes:

a splitting optical system for splitting light from a light source into

light incident upon a first diffraction optical element and light incident upon a second diffraction optical element;

a first polarization unit for adjusting a polarization state of the light from the first diffraction optical element;

a second polarization unit for adjusting a polarization state of the light from the second diffraction optical element; and

an integrating optical system for integrating the light from the first diffraction optical element with the light from the second diffraction optical element, and for introducing integrated light into the reticle.

Claim 19. (Cancelled).

Claim 20. (Currently amended): An exposure apparatus comprising:

an illumination optical system ~~according to claim 12~~ for illuminating a reticle; and
a projection optical system for projecting a pattern on the reticle onto a plate,
wherein said illumination optical system includes:

a first diffraction optical element upon which light is incident from a first light source among a plurality of light sources;

a second diffraction optical element upon which the light is incident from a second light source among the plurality of light sources;

a first polarization unit for adjusting a polarization state of the light from the first diffraction optical element;

a second polarization unit for adjusting a polarization state of the light from the second diffraction optical element; and

an integrating optical system for integrating the light from the first diffraction optical element with the light from the second diffraction optical element, and for introducing integrated light into the reticle.

Claim 21. (Cancelled).

Claim 22. (New): A device fabrication method comprising the steps of:

exposing a plate by using an exposure apparatus; and

developing the plate,

wherein said exposure apparatus includes:

an illumination optical system for illuminating a reticle; and

a projection optical system for projecting a pattern on the reticle onto the plate;

wherein said illumination optical system includes:

a first diffraction optical element upon which light is incident from a first light source among a plurality of light sources;

a second diffraction optical element upon which the light is incident from a second light source among the plurality of light sources;

a first polarization unit for adjusting a polarization state of the light from the first diffraction optical element;

a second polarization unit for adjusting a polarization state of the light from the second diffraction optical element; and

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an integrating optical system for integrating the light from the first diffraction optical element with the light from the second diffraction optical element, and for introducing integrated light into the reticle.